REAL ESTATE BONDS AS AN INVESTMENT SECURITY

By George A. Hurd,
Vice-President, the Mortgage-Bond Company of New York.

In considering real estate bonds as an investment security, it is essential to examine them from the standpoint of the fundamental requisites of all good investments, namely, safety, interest return and convertibility. Of these requisites, that of the safety of the principal under all conditions which may arise is by far the most important and the one to which most consideration will be given.

It may be said at the outset that the principal advantage which real estate has over other forms of security rests in the certainty or stability of its productive power. All value in real estate is the result of income capitalized. In the case of city real estate, the natural causes which lead to the growth of cities in certain locations create a permanent demand in those locations for areas on which to live or transact business. Such advantages in location are paid for in the form of rent, and as long as a community exists there will be income from the use of locations within it, and real estate values founded upon this income. In regard to farm lands, the productivity of the soil creates an annual income, a part of which, as rent, may be capitalized into value. As long as the soil is productive, income, and therefore real estate values, will exist.

The basis of value for real estate being its productive power, and this being dependent on permanent forces, real estate furnishes the soundest basis against which to issue investment securities. Such securities are based upon a mortgage of the real estate to secure an obligation. While any mortgage might secure a series of bonds, instead of a single bond or note, which might thus be called "real estate bonds," they would not differ in any essential, except that of convenience, from the ordinary mortgage transaction. What is meant by "real estate bonds," or mortgage bonds in the investment sense, is a series of bonds in convenient denomi-

nations secured by real estate mortgages, the bonds being issued by a company formed for that purpose and itself obligated on them. Such mortgage companies have been developed so long in Europe, that any study of the subject must include an examination of the history of the development of the mortgage business in Europe, and other parts of the world subject to European influence, as a prerequisite to the understanding of real estate bonds as an investment security in this country.

So large a part of the world's wealth consists of real estate, that the use of it as security for debt has been a matter of the most vital importance in the commercial progress of the race, since it gave to land a partial convertibility, and prevented the capital invested in real estate from being wholly fixed. Down to the beginning of the last century, however, mortgages were restricted to transactions between individuals who had personal knowledge of the particular property offered as security. This necessarily confined possible mortgage lenders to those residing near the property on which a mortgage was desired, and as capital could not move freely to the places where it was most needed, great differences in interest rates existed between different localities.

Among other disadvantages attending this condition of things, was the fact that the effort to find individual lenders, having the exact amount needed, made it unduly expensive to obtain loans, and resulted in economic waste through unnecessarily high commissions. Individuals were also unwilling to make long-time mortgage loans which were nearly or quite inconvertible in their hands, and this resulted in forcing borrowers to pay commissions for obtaining new loans at comparatively frequent intervals, and in exposing them to the risk, at each maturity, of being unable to replace the loan. Individuals also did not ordinarily wish to have their capital returned to them a little at a time, but wanted the full sum at the termination of the loan. This prevented the use of amortization loans, or loans which are paid off by degrees throughout the life of the loan. This type of loan, which is almost universal on the Continent of Europe to-day, and is coming into more frequent use in this country, so greatly increases the safety of mortgage investments that the resulting reduction in interest rates may be sufficient to enable a borrower to pay off a loan in forty or fifty years, by an annual payment for principal and interest no greater

than the payment for interest alone would be, were the loan without the amortization feature. It may be added that loans for fifty or seventy-five years would be for too long a period to be safe, unless for a constantly decreasing amount.

Perhaps the greatest single objection, however, to the old system of conducting the mortgage business, arose from the fact that most individual investors could not be mortgage experts, and as a result frequent and serious losses were made, which tended to increase the whole level of interest rates.

So serious were these objections that Frederick the Great, after the successful termination of the Seven Years' War, took steps to remedy them by approving, in 1770, the formation of the first association for conducting the mortgage business, and lending to it 200,000 thalers at 2 per cent interest as a capital with which to commence business. This association, "Die Schlesische Landschaft," was formed of the land-owning nobles of the Province of Silesia, where the great victories of Frederick had almost all been won. In this district buildings had been burned, cattle and farm implements destroyed, and the demand for money had become so urgent that, even on the safest mortgage loans, interest rates had risen to 10 per cent, with an additional commission of 2 per cent to 3 per cent.

Before describing such an association it may be well to say that there exist side by side in Europe these mutual associations, which deal largely if not exclusively in farm loans, and mortgage-banks, or stock companies, for dealing both in city and farm loans, the latter having appeared almost simultaneously in Germany, Austria and Belgium about 1835. These two forms of conducting the business operate through the same method, which is to make mortgage loans and then issue their own bonds, secured by an equal amount of mortgages.

While there are, of course, differences between the laws governing mutual mortgage associations at different times and in different countries, the great majority have certain principles in common. They are formed with their borrowers as members, and each member is responsible for any loss of the association through bad loans, a condition which acts as a check on the committee of members which approves applications for loans. They began generally by making loans not in money, but in bonds of the asso-

ciation, which the borrower then had to sell for the best price he could; though, as a surplus was accumulated, this feature was often given up and the loans made in cash, the bonds being sold by the association. Their loans are long-time loans, generally from fifty to seventy-five years, with an annual payment sufficient to retire the principal of the loan, and with privileges of anticipation; and the associations are restricted by law as to the locality in which they may make loans, the character of the property they may loan on, and the margin of security they must have.

A later development in Germany and the Scandinavian countries has been a central association, which makes no loans itself but issues bonds secured by the less well-known bonds of local associations, thus obtaining a lower rate of interest through having better credit. The mortgage companies proper are stock companies, which are conducted along lines similar to the associations, and are subject to similar legal restrictions. There is, of course, no individual responsibility to make good the losses resulting from bad loans, the place of this being taken by the capital and surplus of the company, and by the limitation by law, of issues of bonds to a certain number of times the capital.

To Germany belongs the credit of originating and developing the business as it is now conducted, though other countries have not been slow to imitate her methods. In Germany the number and size both of the companies and associations has gradually increased, and especially since the Franco-Prussian War, until there are now about thirty-five companies and twenty-five associations, having an aggregate amount of bonds outstanding of over 8,000,000,000 marks, considerably more than half of these having been issued by the companies.

The Credit Foncier of France, founded in 1852, is the largest and most widely known of all mortgage companies, and the magnitude of its operations may be judged by the fact that for many years past its outstanding bonds have amounted to between 3,000,000,000 and 4,000,000,000 francs, while its credit is so good that the rate of interest on its bonds gradually dropped to 2.60 per cent some ten years ago; though a more recent issue was at 3 per cent. There are in France in addition to the Credit Foncier, which enjoys special privileges from the government, and, consequently, has no rivals, only small local mutual associations for

making farm loans in restricted districts. More than two-thirds of the mortgage loans of the Credit Foncier are on city property, and the remaining one-third on farms. Although in the early years of the company's history a great majority of the city loans, in amount, were on property in Paris, the loans in other French cities have for some years past exceeded those in Paris, the company thus showing a growing tendency to distribute its loans more widely.

In Austria-Hungary both mortgage companies and associations are well developed, and fill the same place in the business system of that country as in Germany. More than 600,000,000 florins of Austrian and Hungarian bonds are listed on the Berlin Exchange. The eleven mortgage companies alone have bonds outstanding amounting to over 450,000,000 florins.

In Italy it was not until 1866 that a general mortgage law was passed, under which eight companies were formed, each of which was restricted as to the territory in which it could loan. By 1884, when the law was changed, these companies had loans of over 1,000,000,000 lire. By the new law the restrictions as to locality were done away with, and mutual associations were authorized. The next year, however, the Italian National Bank was authorized to go into the mortgage business, and 25,000,000 lire were set aside from its surplus for this purpose. It was soon found that this large bank could obtain funds on better terms than the smaller companies, and in 1890 Italy decided to abandon the old system entirely and to give to this one bank the exclusive right to issue mortgage-bonds, and other special privileges, thus following the example of France.

In Russia it is natural to expect more backward conditions than in other parts of Europe, yet even here mutual mortgage associations have been created in different districts, the oldest of them dating back to 1803, and in 1873 the Central Mortgage Bank of St. Petersburg was formed, with a capital of 15,000,000 roubles, one-third of which was owned by the government, to issue bonds based not directly on mortgage-loans, but on the bonds of the local associations.

In the Scandinavian countries, including Finland, each has developed its mortgage business in imitation of that of Germany, but along independent lines. In Denmark the mutual associations are highly developed, the oldest of them dating back to 1795, and

there is also one large mortgage company. In Norway there is only one mortgage company, a national concern operating with capital furnished by the government. In Sweden there are two central associations, each issuing bonds against loans made by local provincial associations. One of these sets of associations deals in farm loans, the other in city loans. In addition, there is one strong mortgage company, which loans in the City of Stockholm. In Finland there is a mutual association; and a company, whose bonds have been largely sold in Germany.

In most of the smaller countries of Europe we find, as in Germany, a dual system of mutual associations and stock companies, sometimes with special privileges from the government after the model of the Credit Foncier. The latter is the case in Spain; where the Banco Hipotecario has since 1875 had a practical monopoly of the mortgage business, and also in Portugal, where only one company is authorized to issue mortgage-bonds. In Holland the mutual associations are of less importance than the mortgage companies, which exist not only for the purpose of making loans in Holland, but also for loaning in the United States and in the Dutch Colonies. Belgium has two large mortgage companies and two associations which are old and well established. Switzerland is provided with over twenty mortgage companies, about half of which operate only in their own cantons. In Greece the National Bank was authorized in 1841 to make mortgage loans, and in 1879 a mortgage company was founded. Servia has one mortgage company, whose bonds, guaranteed by the government, are sold in Germany. Roumania has several mortgage companies.

The mortgage business of Algeria and Egypt is done by French companies, and their bonds are sold in the French market, as are also those of French companies loaning in Canada and Argentina. Among other countries where the European system of conducting the mortgage business, by issuing bonds against mortgages is found, we may mention Brazil, Mexico and the Argentine Republic.

An exception to the general prevalence of this system is England, whose example has largely influenced the United States, though it is doubtful if the causes which led to a different development of the mortgage business there are applicable here. England has no mortgage company loaning on English property and organized on lines similar to those on the Continent, though English

and Scotch companies operating in the United States, Canada, Australia, Cape Colony, Natal, Mauritius, Argentina and Peru, issue bonds in the same manner as the European companies. One of the principal reasons is no doubt the prevalence in England of long-time ground leases, which do away with much of the necessity for mortgages, since instead of owning the fee with his own capital and borrowing on mortgage for improvements, the tenant under a long lease puts his own capital into the improvements and pays an annual ground rent in place of interest on a mortgage. Then, too, legal restrictions, such as the life-estates and entails commonly met with in England, are great obstacles to the mortgaging of property. And it must be remembered, also, that since the security in England depended to an unusual degree on questions affecting legal titles, the mortgage business naturally fell largely into the hands of lawyers, who still control a great part of English mortgage investments.

In any consideration of the methods of loaning in Europe, the most striking fact is that never, in the 135 years of their existence, has there been a failure of a European mortgage company or association, with insignificant exceptions due to dishonest management. Such long-continued safety and success make it interesting to examine the safeguards established by law with a view to preventing losses on bad loans. The principal of these are four in number, and have to do with the class of real estate accepted, the percentage of value to be loaned, the limitation of the volume of bond issues in proportion to capital, and the requirement of annual payments in reduction of the principal of loans. While some variations are naturally found in different countries, the underlying basis is found on examination to be surprisingly uniform.

Taking up first the class of real estate accepted, we find that no company is allowed to loan on vacant land, or other unproductive property. In the laws of the Prussian Central Boden-Kredit Company, one of the largest of the German companies, the restriction is expressed in this way: "The company shall make loans only on property yielding a permanent and sure income." No loans, also, are permitted on mines and quarries. To these prohibitions the Credit Foncier adds theatres; and mills and factories, except where valued at what they would bring if sold for a different purpose.

The Mortgage Bank of Norway prohibits loans on factories, as do many other companies, and, in addition, loans on "uninsured

buildings or country houses without land," in this resembling the Bavarian Mortgage Bank of Munich, which prohibits loans "on country castles or on buildings which cannot be rented separately from the estates to which they belong." A peculiar provision in connection with the Berliner Pfandbrief Institute, whose loans are restricted to the City of Berlin, is that it can only loan "on buildings that have been in use for three years." Undivided interests in property are universally excluded as security.

The second safeguard is the limitation on the percentage of value to be loaned. The only companies or associations ever allowed to loan more than $66^2/_3$ per cent of the value of property are the Hamburg Association, founded in 1782, and the Deutsche Grundschuldbank of Berlin (when loaning on city property), which could loan up to 75 per cent. Another exception is Holland, where 75 per cent is usual on land and 60 per cent on buildings. In Germany the usual limit is $66^2/_3$ per cent of the value, though the Prussian Central Boden-Kredit Company is limited to 50 per cent of the value of buildings and $66^2/_3$ per cent of the value of land, while on vineyards and forests the limit is $33^1/_3$ per cent. The Deutsche Grundschuldbank of Berlin is limited on farm loans to 60 per cent and the Bavarian Mortgage Company of Munich to 50 per cent. The Deutsche Hypotheken Bank of Meiningen takes special precautions against overvaluation by limiting its loans to 60 per cent "of the value when sold under unfavorable circumstances." The limitation is sometimes expressed in terms of rentals, the Deutsche Hypotheken Bank of Berlin, for instance, being limited to ten times the official assessed income in cities, and twenty-five times the assessed income on estates, and the Süddeutsche Boden-Kreditbank to twenty times the net income. Some companies in Germany are, however, restricted to 50 per cent of the value of property, and others to 60 per cent of the land value and 50 per cent of the value of the buildings.

Turning to other countries, we find that the Credit Foncier of France is limited to 50 per cent, except on forests and vineyards, where the limit is $33^1/_3$ per cent. In Italy the limit for mortgage companies, originally placed at 50 per cent, was raised in 1881 to $66^2/_3$ per cent. In Russia the St. Petersburg Credit Association is limited to 50 per cent, and the same is true of the associations in Belgium, though the mortgage companies there loan up to $66^2/_3$

per cent. The largest mortgage bank in Austria is limited to 50 per cent. In Denmark the companies are limited to 60 per cent on land and 50 per cent on buildings, while the associations are limited to 50 per cent on land and 40 per cent on buildings. In Norway the limit is 60 per cent on all farm loans, and loans in Christiania and Bergen, while it is 40 per cent to 50 per cent in other towns. In Sweden the limit is generally 50 per cent, though the one mortgage company there has been raised to 60 per cent. In Argentina and Mexico the limit is also 50 per cent.

These percentages may be compared with the limitations imposed by law in this country for the mortgage investments of trustees and savings banks, and those generally adopted by custom. In New York State the limit for trustees is $66^2/_3$ per cent and for savings banks 60 per cent, while except in a few other large cities 50 per cent is a maximum, and in smaller cities and newly developed agricultural districts loans are not often made for more than $33^1/_3$ per cent to 40 per cent of the value. It should be stated, however, that the delays incident to foreclosure are much greater here than in Europe, with correspondingly greater accumulations of delinquent interest, taxes and costs, so that our loans are in fact for larger percentages than they appear to be. In some cases European companies have the right to take almost immediate possession after default, the Credit Foncier having to wait but eight days, and the Banco Hipotecario of Spain only two days.

The third limitation established has to do with the amount of bonds which may be issued with a given amount of capital. The surplus is in all cases treated as a separate and special fund, and the usual legal requirements are, that a percentage of the earnings amounting to 10 per cent or 20 per cent be set aside annually until the surplus equals 20 per cent or 25 per cent of the capital of the company. The Credit Foncier of France, and the Prussian Central Boden-Kredit Company, are both limited in their issues to twenty times their capital stock, and this was until recently the generally recognized limit in Germany. Now, however, the General Mortgage Bank law of Germany fixes the limit at fifteen times the capital. Among companies restricted to ten times their capital stock are the Italian companies under the law of 1884, the Swedish Company, the Banco Hipotecario of Mexico, and the greater number of Dutch mortgage companies, though the latter are restricted to

ten times the *subscribed* capital, only a fraction of which is paid in. Norway limits the issues of its mortgage company to eight times, and Denmark its companies to six times their capital. The English and Scotch companies, which loan only outside of Great Britain, follow a different plan and usually limit their bond issues to an amount equal to their subscribed capital, or even to the unpaid portion of it. At first thought this would appear to be more conservative than the continental method of allowing issues up to fifteen or twenty times the capital, but it may well be doubted whether the continental method is not in fact the safer; since with a large volume of business profits are satisfactory from a small difference in interest rates between the bonds and the mortgages securing them, and the temptation is removed of taking risky loans at higher rates of interest in the attempt to earn greater profits through a wider margin of difference in rates, where the volume of business is small. Incidentally to this it may be mentioned that the Credit Foncier, and the Credit Foncier Canadien, are limited by law to a difference in interest rates on their loans and their bonds of $^{6}/_{10}$ of 1 per cent, the Italian companies, and more recently the Italian National Bank, to $^{45}/_{100}$, and the Austrian companies to 1 per cent, thus recognizing the danger of attempting to make large profits out of loans at high rates of interest.

The limitation of the territory in which loans may be made, and the general requirement of annual payments in reduction of the principal of loans, together with a rigid government inspection, furnish additional safeguards, as does also the further requirement that any property taken under foreclosure must be promptly sold, thus preventing a company from speculating for a future possible rise in the value of its foreclosed real estate, and concealing its losses by carrying such foreclosed real estate as an asset at cost, regardless of its real depreciation.

As has been shown, the companies engaged in issuing real estate mortgage securities in Europe are now safeguarded by a body of laws which has gradually grown up on this subject, and by which they are governed in accordance with past experience. In order to insure complete safety to investors, the business of making mortgages and issuing securities against them is one which should everywhere be closely controlled by law, as may be realized from a consideration of the varied elements of risk to be guarded against.

While many of these elements against which the margins on mortgage-loans are to guard are the same in farm loans as in city loans, the problems in farm loans are on the whole much simpler, the quality of the soil, the annual rainfall and transportation facilities being the essential elements to be considered.

In the case of mortgage loans on city property, however, the margin to insure safety must be sufficient to cover the following elements of risk:

(1) Errors in judgment in valuing property.

(2) The lowering of real estate values by general commercial and financial depressions.

(3) Loss of value by changes in the internal structure of cities.

(4) Depreciation of buildings.

(5) Accumulations of delinquent interests, taxes and costs during foreclosure.

(6) Loss of value through disposing of property at forced sale.

Taking these up in order we may consider—First: Errors of judgment in appraising the value of property. Since each piece of real estate stands by itself, there can never be a "market value" for it in the sense that there is for bonds or shares of stock, where each sale is representative of the value of the entire issue. The valuation of real estate must rest on opinion only, and while it may be comparatively easy for an expert with full information to value real estate correctly in an active market, in a market where transactions are few the difficulty is very great. In order to have appraisals of any value, a real estate expert must have at his command a large fund of information in regard to sales of property, rentals of property, and the cost of construction of buildings, since these are indispensable to a proper valuation of the real estate. It is not always easy to obtain information in regard to the consideration for sales, especially in New York City, where the practice is growing of setting out a nominal consideration of one dollar in deeds conveying property. The insertion in deeds of fictitious considerations must also be guarded against, such considerations being sometimes placed at a figure above the selling price, in the hope of giving the property a fictitiously high value, and less frequently at a figure below the actual selling price, in the hope of obtaining a lower assessment for purposes of taxation. The selling price of property is ordinarily

based on the rental of the property, which is the source of its value, but this is modified by the prospect of the future rental of the property. The ordinary method of appraisal of improved property is to add to the estimated land value the present cost of the buildings, with an allowance for age and depreciation. The aggregate of these values should always be checked wherever possible by capitalizing the net rentals of the property, after deducting expenses of all kinds, to find if the building's commercial value is equal to its structural value. Wherever a building is misplaced or badly designed, loss of income over a period of years is a sure result; and examples could be given of many expensive buildings, the cost of which has been entirely thrown away, as is shown by the fact that the net rentals produced by them have been less than those produced by adjacent properties improved with buildings of trifling cost. The structural value of the improvements, considered by itself, is therefore an entirely unsafe guide in such cases.

On the other hand, to rely on the amount of the net rentals without considering the proper rate capitalization would be unsafe, since different classes of property are capitalized on a different interest basis. For example, a retail store property rented on a long lease to an entirely responsible tenant might be capitalized on a basis of 5 per cent net return, while a tenement house with a large number of tenants and corresponding vacancies and difficulties of collection would be capitalized at a considerably higher rate.

Second: Mortgage-loans ordinarily cover so long a term of years that general financial and commercial depressions during the life of the loans cannot be foreseen, and loans should have margin enough to cover shrinkage of value due to this cause. A period of general industrial depression has a powerfully depressing effect on real estate, but this effect varies greatly on different classes of property. When a mortgage loan is made for a term of years, if the borrower pays his interest and complies with the covenants of the mortgage in regard to taxes, insurance, etc., the principal of the loan cannot be called, nor can additional security be called for, no matter what the decline in the value of the property mortgaged may be. A great distinction is thus apparent between mortgage loans and ordinary banks loans; and when a loan is made for the usual term of five years, it should be borne in mind that the property, to furnish adequate security, should at all times during the five-

year period show a comfortable margin above the amount of the loan. We are familiar with the recurrence of panics every twenty years with intermediate depressions of less violence at ten-year periods. The effect on real estate of these greater and lesser panics is, however, not directly commensurate with the financial and commercial disturbance which they cause. A reason for this is probably to be found in the fact that the growth of population in American cities has, ever since the foundation of our government, been conspicuously greater in the alternate decades coinciding with the lesser or intermediate panics. The effect of this has been to offset the effect of intermediate depressions, as far as city real estate is concerned, because the abnormal growth of city population has coincided with that general period; while the relatively slow growth of cities during the decades coincident with the greater panics aggravates the depression of real estate following these panics. During the period of depression following a great panic individuals of every community are forced to restrict their expenditures to the most necessary objects, and the result of this is that the classes of property within a city which maintain their value best are the two indispensable classes of ordinary business and ordinary residence. All properties devoted to special uses, such as theatres, clubs, hotels, churches, etc., as well as factories and warehouses especially suited to a single line of business, suffer severely. During such a period, also, all properties which, on account of the growth or movement of a city, have a value based on expectations of higher rentals in the future are greatly depreciated, since the element of value based on future expectations is largely eliminated. This depreciation applies especially to suburban land, or that at the circumference of a city which is just coming into use, and is aggravated if the growth of a section has been artificially stimulated by capitalistic influences. The difficulty of valuing property, during a period of depression, is greatly increased just at the time when, through falling rentals and values, it is most necessary to be careful in making mortgage-loans. This arises partly because the number of real estate transactions is greatly reduced and information from this source is thus largely cut off, since no property owner will sell under such conditions except through necessity; and also because of the difficulty of forecasting future rentals where vacancies exist, it being a hard matter to judge whether these are to be temporary

or long continued. To avoid the difficulty which arises from a lack of information about sales, the most feasible method is to prepare a scale of relative values for a city, so that a few real estate transactions in different localities, will tend to show a drift of values, just as an inspection of the daily fluctuations of a half dozen prominent stocks tends to show the drift of fluctuations for the whole list of securities.

A further effect of a depression on values on different kinds of property, not usually given sufficient consideration, is the great difference which a reduction in the gross rentals of property makes in the net rentals where the expenses of the property are heavy, as contrasted with the slight effect which such a drop in gross rentals has where the expenses of a property are light. This is readily shown by contrasting a modern office building, which normally has expenses amounting to about 50 per cent of its gross rentals, these expenses including not only taxes and insurance, but heat, light, elevator service, janitor service, etc., with a store building of moderate height where the expenses do not amount to over 15 per cent of the gross rentals, the owner having no expenses except taxes and insurance. If we assume a drop in gross rentals amounting to 30 per cent, the drop in net rentals of the office building will be 60 per cent, while the drop in net rentals of the store building amounts to only about 35 per cent. Since values follow rentals, the stability of value of a property that is less expensive to operate tends always to be greater than that of a property which is more expensive to operate, and careful lenders are therefore disposed to exercise the utmost caution in loaning on large buildings, such as office buildings, hotels and apartments, the expenses of which are heavy.

Third: Loss of value through changes in the internal structure of a city. There is always going on in a city a movement of the retail stores in the direction of the best residence district, this being an effort on the part of the storekeepers to approach as closely as possible to their customers. As this district moves forward it leaves a vacuum behind it, which is filled later by wholesale or other uses which are inferior from a rental standpoint. Unless the growth of a city is so rapid as to make its wholesale property worth as much as retail property was a few years before, there will be an actual drop in the value of the property so replaced by wholesale; and this has commonly occurred. Where there has been

a change of axis of the main retail business streets of a city, there has always occurred a shrinkage of the values created by an anticipated growth of the business district in the line of its original direction. Many examples are to be found in American cities of the best retail business streets being parallel to a lake or river front during the growth of a city up to a population of perhaps 50,000, while after that point in population has been passed, the concentration of the best residence district at a distance from the water front has drawn business out towards this residence district, on lines at right angles to the waterfront and to the original business streets. As regards wholesale and warehouse property, the chief danger to be guarded against arises through changes in the location of transportation terminals. The natural tendency of wholesale property is to place itself between its transportation facilities and the best retail business district, so that it may at the same time be able to handle its goods cheaply and yet be in a location convenient for its customers. Where the wholesale business of a city grew up through river transportation, it is noticeable that of late years the predominance of railroads has been so great as to withdraw wholesale business very largely from locations occupied by it for half a century, with an increase of value near the railroad terminals and a corresponding decrease of value near the wharves.

In the case of residence property, purely social reasons are the predominant ones in establishing high values, and property of this character is for this reason liable to depreciation through changes of fashion. Changes of transportation are also of great importance in determining residence values, improvements in street-car facilities enabling people of a good social class to live at greater distances from the business center of a city and among pleasant surroundings. The general tendency of our street railway improvements of the last twenty years has been to equalize the value of residence property over considerable areas, and as a result of this to depreciate residence property which is close to business property, while rapidly enhancing the value of well-located property further out. Well-developed residence districts at a distance from the business center of a city have an element of stability in the fact that they are less likely than those closer to the business center to be injured by the encroachment of nuisances. In the term "nuisances" may be included buildings for every kind of utility

except residence, since homogeneity is necessary to the maintenance of value in a residence district.

Fourth: Depreciation of buildings. Mortgage loans are usually made for a long enough term to have the improvements lose appreciably in value from age and usage during the life of a loan, except in cases of the most expensive construction. The loss through depreciation where a building is kept in good repair is estimated at ½ per cent a year for the highest type of fireproof construction, and increases for different classes of buildings to a maximum of 5 per cent a year for cheaply constructed workingmen's cottages. If improvements are not kept in good repair—and it is practically impossible for the mortgagee to compel repairs to be made—the further depreciation from this cause must be added. In addition to the depreciation of buildings through age and usage there frequently occurs a further and more serious depreciation due to changes in style or new methods of construction, or to a change of utility in the location. An example of such a change in style in detached residences has been the abandonment of the mansard roof, once popular throughout the United States, with the result that residences built in this style of architecture depreciated heavily in value, regardless of the soundness of their structural condition. Other changes in fashion affecting residences are the abandonment of narrow hallways and of stained glass and other exterior ornamentation, together with newer and better methods of heating and lighting houses. As regards business property, the erection of modern fireproof buildings frequently takes away a large part of the value of the older buildings with which they compete; and the failure of architects formerly to plan their store buildings with the ground floor frontage all open for the display of goods, has greatly depreciated the value of older buildings, or has led to their reconstruction along modern lines at large expense. A further element of depreciation comes when there is a change of utility in the location. If a residence property has become suitable only for business, the value of the improvements disappears entirely; and the same is true of any such change of utility, subject of course to the possibility of saving a portion of the value of existing improvements through their reconstruction for a new purpose.

Fifth: Accumulations pending and during foreclosure, including the period of redemption, if there is one. The amount loaned

on property, practically speaking, is not the face of the loan, but the amount of the debt with all its accumulations at the time of realizing on the property which has secured the debt. These accumulations are usually made up of delinquent interest, delinquent taxes (with penalties and a high rate of interest), delinquent street improvement taxes (with penalties), court costs, attorneys' fees, repairs after obtaining the property, and a real estate commission for selling which varies from 1 per cent in New York up to 5 per cent in smaller communities. In addition to these, there is a total or partial loss of interest from the time of commencing suit until the property is finally sold. In the aggregate these accumulations vary from 10 per cent of the face of a loan to a maximum of 40 per cent in cases of small loans where the laws are unfavorable to lenders. These variations in the amount of the accumulations attract attention to a comparison of the laws of the various states in regard to mortgage loans. One of the commonest provisions in Western states, and one which adds largely to the accumulation, is the provision of law granting to the mortgagor a period after judgment of foreclosure within which he may redeem the property by paying to the judgment creditor the amount of the judgment with interest. This provision seems to have come into existence in states where mortgage loans on agricultural property predominated, with a view to avoiding the serious effect on farmers of a single crop failure; and since such laws must be uniform in their operation they apply to loans on city property as well. This period of redemption varies from nine months in Nebraska and a year in most of the Rocky Mountain and Pacific Coast states, to eighteen months in Kansas and two years in Alabama. The effect of this law is to prevent outside investors from buying at foreclosure sales, since they cannot be sure that the property will not be redeemed by the mortgagor by payment of the judgment and interest; and also prevents a mortgagee, during the period of redemption, from improving property and obtaining larger rentals, for the same reason. Where, as in a few of the Middle Western states, the mortgagor remains in possession during the period of redemption, the accumulation is much greater, since during this period the mortgagee is entitled to no rental return at all; and a further action at law may become necessary to obtain possession. Other legal features which affect the amount of the accumulations are those which permit inter-

est to be compounded; which permit penalty rates of interest, both on delinquent principal and interest, and large contractual attorneys' fees. Obviously the element of time is the principal one, and, where a mortgage may be foreclosed and the property obtained in a short time, the accumulations will be small. In this respect the laws prevailing in the Southern states appear to be more favorable to lenders than those in any other part of the United States.

Sixth: Loss of value through disposing of property at a forced sale, and through the injury to the property caused by the foreclosure. Though properties seldom have to be bought by the mortgagee at foreclosure sales in Europe, it is still the common rule in the United States, largely owing to defects in our mortgage laws. As has been pointed out, the time necessary to obtain title or sell the property at foreclosure sale in Europe is generally very much less than it is anywhere in the United States, and is generally less in the Eastern and Southern states than in the Western. It is usually in the largest cities only, however, that there is any speculative market furnishing a demand for properties of all kinds, at all times, at a reduction in price from the normal value. Outside of New York City there is practically no auction market for real estate, and in most, though not all, of the smaller cities, properties are sold generally to those who intend to use them personally. Where, therefore, a quick sale is desired, a surprising difference will be found in different communities and on various classes of property; some cities having an active market, which will absorb any good property offered at a price within perhaps 5 per cent to 10 per cent of its full value, while in other cities it is difficult to obtain within 25 per cent of the full value obtainable under favorable circumstances.

These varied elements against which the margins on real estate are to guard, and with respect to which the European laws compel certain safeguards, can be equally guarded against by the mortgage-bond companies in the United States, by the incorporation, in the trust agreement between the issuing company and the trustee for the bondholders, of covenants respecting the character of the mortgages to be deposited, the specific performance of which may be compelled by a suit in equity, in addition to rendering the company liable at law for any breach. This feature of the security for

real estate mortgage bonds is so vital that it may be well to quote in full from the trust agreement of an American mortgage-bond company, the article bearing on the mortgages which may be deposited:

1. That each and every mortgage which it shall at any time assign to and deposit with the trustee under this agreement, shall be a first lien upon improved real estate in a city situated in the United States of America, having a population of not less than 40,000, for an amount not exceeding one-half of the value of the mortgaged property as appraised for the company, except that in cities having a population of not less than 300,000 such mortgage may be for an amount not exceeding three-fifths of the value of the mortgaged property as appraised for the company, and that within the political boundaries of New York City such mortgage may be for an amount not exceeding two-thirds of the value of the mortgaged property as appraised for the company. The term "city" is used throughout this instrument in the economic sense, to designate an urban community, and without reference to its political boundaries.

2. That it will not assign to and deposit with the trustee under this agreement any mortgage on a single building which shall exceed an amount equal to $2.00 for each inhabitant of the city in which the property is located.

3. That the aggregate unpaid principal amount of all mortgages forming portion of the trust fund upon property in any one city, will not exceed in amount $2.00 for each inhabitant of such city per $1,000,000 of the company's bonds issued and outstanding and secured by this agreement.

4. That the aggregate unpaid principal amount of all mortgages forming portion of the trust fund upon property in any one city, shall not exceed in amount twenty per cent of the total amount of the company's bonds issued and outstanding, unless such mortgages are upon property situated within the political boundaries of New York City.

5. That the aggregate unpaid principal of all mortgages forming portion of the trust fund upon property in any city of from 40,000 to 70,000 inhabitants, shall not exceed a total of $40.00 per inhabitant, and in cities of from 70,000 to 100,000 inhabitants shall not exceed a total of $50.00 per inhabitant.

6. That no single bond or mortgage shall be assigned to and deposited with the trustee under this agreement which shall exceed in principal amount 10 per cent of the capital and surplus of the company then outstanding.

7. That the appraised value taken as a basis for the mortgage loans is not to exceed the selling value determined by the company by careful investigation. In arriving at this value only the established utility of the property and the earning power under systematic management will be considered.

8. That such appraised value of properties securing bonds and mortgages assigned to and deposited with the trustee under this agreement, shall be in all cases based on two appraisals, one of which shall be made by the company's appraiser in the city where the property is located, and the other shall be made by a representative of the company in the home office, who shall have personal knowledge of values in all the cities in which he makes appraisals. From time to time the board of directors shall issue instructions to the appraisers touching the methods to be employed in fixing the value of properties on which loans are to be made. No mortgage shall be assigned to and deposited with the trustee unless it has been approved by the executive committee of the company. In case any mortgage amounts to $100,000 or over, a third appraisal shall be obtained, made by an additional appraiser selected by the company.

9. That the bonds and mortgages which it shall assign to and deposit with the trustee under this agreement shall in no case be secured by farm property, unimproved property, undivided interests in property representing less than the entire ownership of the property, leaseholds, or by churches, factories, clubs or theatres.

10. That mortgages on new buildings which are not completed and productive must not form more than one-tenth of the total of mortgages assigned to and deposited with the trustees under this agreement. No building loans shall be made in New York City without a guarantee, either of the completion of the building or of the repurchase of the mortgage by a corporation in good standing competent to take such a contract, nor in other cities without retaining at all times from the moneys to be advanced upon the mortgage an amount which the company shall deem sufficient to entirely complete the building according to the plans and specifications.

11. That no real estate shall be acquired except to avoid losses under foreclosure, or to provide offices for the company's own use. All real estate acquired under foreclosure shall be promptly sold.

12. That fire insurance policies to an amount which the company shall deem sufficient to protect the mortgage in fire insurance companies in good standing shall be obtained by the company and deposited with the trustee.

13. That the time within which an action hereunder or upon any of the coupons or bonds of the company may be commenced, shall be that now established by the laws of the State of New York, namely, twenty years from accrual of such right of action.

14. That so long as any of the company's bonds shall be outstanding, the company agrees that it shall have an annual audit of its books by independent auditors or chartered accountants, to be designated from time to time by the executive committee of the company.

15. That it will from time to time duly pay and discharge all taxes, assessments and governmental charges lawfully imposed upon the trust fund, or upon any part thereof, and all taxes, assessments and governmental charges lawfully imposed upon the interest of the trustee therein; provided, however, that the company shall not be required to pay any such tax, assess-

ment or governmental charge so long as it shall, in good faith, by appropriate legal proceedings contest the validity thereof.

16. That it will do, execute, acknowledge and deliver, or cause to be done, executed, acknowledged and delivered, all and every such further acts, deeds, transfers and assurances for the better assuring, assigning and confirming unto the trustee each and every bond and mortgage which shall at any time be assigned to and deposited with the trustee or intended so to be, as portion of the trust fund, as the trustee shall reasonably require for better accomplishing the provisions and purposes of this agreement, and for better securing the payment of the principal and interest of the bonds issued and outstanding hereunder.

17. That it will not do or perform, nor voluntarily permit to be done or performed, any act or thing by which the security of this agreement and the assignment and deposit of the bonds and mortgages, which shall from time to time form portion of the trust fund, can be in any way or manner impeached or impaired.

18. That it will well and truly at all times fully inform the trustee in writing, with respect to all payments of principal received by the company from or with respect to any bond and mortgage assigned and deposited hereunder, and will give the trustee such additional information touching any of such bonds and mortgages, or the property covered thereby, as the trustee may reasonably require from time to time.

It may be observed that, in addition to the European requirements, this company has obligated itself so to scatter its investments as to introduce an element of insurance against loss through depreciation due to a possible decline of prosperity of any single community, and also that there are important limitations in regard to the size of loans in proportion to the size of the city. In the United States companies are now engaged in issuing real estate mortgage-bonds in New York, Chicago, St. Louis, Cleveland, Louisville and a few other cities, and a company has just been formed for this purpose in San Francisco. In some cases these bonds are issued by trust companies, and in other cases by mortgage-bond companies especially formed for conducting the mortgage business in the European way.

As to the rates of interest which may be obtained on real estate mortgage-bonds, these vary with the changes in interest rates on other classes of high grade securities, but in a general way it may be said that in the United States where mortgage-bonds are as yet a somewhat new type of security, these rates are slightly higher than rates on first-class municipal bonds or railroad bonds, while in

Europe the rates on mortgage-bonds are ordinarily slightly lower than on the same class of railroad or municipal bonds.

Quotations of the issues of different companies and associations show, that, with ordinary conditions in the European money markets, the 4½ per cent bonds sell considerably above par, and the 4 per cent bonds slightly above par, while the 3½ per cent and 3 per cent bonds, except those of the strongest companies, are at a small discount, unless they are issued with a lottery feature consisting of an annual drawing for prizes. These lottery bonds are prohibited in Germany, but are frequently issued in France and Austria, and ordinarily command a high premium regardless of the interest rate they bear.

Allowing for the company's profit, borrowers in Europe usually pay from 3½ per cent to 5 per cent interest on their loans, or an average of somewhat less than 5 per cent with the annual amortization payment included, provided they have good security to offer. The saving in interest to borrowers can be appreciated when we recall that rates in Germany were 10 per cent, in France 7 per cent to 12 per cent, and in Italy from 8 per cent to 12 per cent, just prior to the organization of the mortgage business in those countries. In Spain to-day private lenders frequently obtain from 8 per cent to 10 per cent, as compared with the 5 per cent charged on loans of the Banco Hipotecario with 1½ per cent additional to cover expenses and amortization. In Russia interest rates have always been higher than in the other large countries of Europe, the prevailing rates even before the present disturbances there, having been from 6 per cent to 7½ per cent, while bonds have not been sold at a lower rate than 4½ per cent.

In times of war mortgage-bonds have been found to be more stable in value than any other class of security, even government bonds,—because, though governments may fall, the land remains. At the time of the troubles of 1848 in Germany mortgage-bonds ranged in price between 83 and 96, while government bonds fell to 69, and the shares of the Bank of Prussia to 63. During the Franco-Prussian War the 4 per cent bonds of the Credit Foncier sold at from 92 to 95, a higher figure than the quotation of any subsequent year until 1875, and the bonds of German companies showed a similar strength. In times of commercial panics it has been observed, too, both in Germany and Austria, that these bonds

actually rise in value, the explanation being that in the period of inflation preceding a panic they are largely sold in favor of more speculative investments, while after a panic there is a desire to invest again in the safest securities.

The great advantage of the system of issuing bonds which are secured by mortgages, lies in the convertibility which it gives to mortgage investments. These bonds are quoted and dealt in on all the principal European bourses, Berlin and Paris being the great centers for mortgage-bonds of all countries, with Amsterdam and Hamburg next in importance.

Looking at the whole matter from the economic point of view, it appears that the charge of the companies is small for the services rendered. For this difference in interest rate of about one-half of 1 per cent between the bonds and the mortgages securing them, the investor obtains safety for his principal and interest, promptness in receiving payment, avoids loss of interest between investments, and can invest any amount he may wish at any time. In contrast with the ordinary mortgage-loan, no inspection or appraisal of the property mortgaged is necessary, and the care of maintaining fire insurance policies, taxes and assessments and other matters, is done away with; in addition to which, his investment is readily convertible. The borrower gains in having the business conducted by mortgage companies, because of their large resources and the promptness with which they can act on applications for loans, together with low rates of interest and liberal terms of partial or total prepayment; and, further, through the skill and experience of the companies in avoiding poor loans, owners of real estate are deterred from the waste of badly planned or located buildings, and an economic saving of real value is effected.

In comparing real estate mortgage-bonds with other classes of bonds, there are only two such classes at all comparable in point of safety, namely, municipal and railroad bonds. Undoubtedly one of the principal advantages which real estate has over other forms of security rests in the diversity of its usage. The advantage which railroads enjoy over industrials, in the lower rate of capitalization of their obligations, is largely due to the fact that while any one industry is subject to wide fluctuations in its profits, a railroad, which depends ordinarily on diversified industries, is only affected in a small degree by the failure of a few of the industries

upon which it depends. Real estate of a character suitable for mortgage security enjoys the same advantage, since its value does not depend upon the success of any one tenant or form of business; and it has the further element of stability, as compared with railroad and public service securities, of being purely private property, and as such not subject to the governmental regulation which is lawful in the case of quasi-public corporations. Advantages which real estate bonds possess over municipal bonds in the United States consist of a higher rate of interest, and the existence of tangible security supporting the promise to pay. Advantages which they possess over railroad bonds consist of the safety afforded by the fact that the real estate securing each mortgage is worth from 50 per cent to 200 per cent more than the amount of the mortgage, while many if not most of the newer railroads are bonded for their full cost of construction, their only margin of safety consisting of a capitalization of their possible excess earning power; and also of the fact that the capital stock of the issuing company, paid in cash, is pledged to make good any losses occurring through the mortgages.

In conclusion, it may be stated that where real estate bonds are properly safeguarded by law they furnish an attractive security of a high type, by combining absolute safety of the principal with a satisfactory rate of interest, and easy convertibility.